UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

May 23, 2000

Pamela Sihvola, Co-chair
Committee to Minimize Toxic Waste
Post Office Box 9646
Berkeley, CA 94709

Dear Ms. Sihvola,

I am writing in response to your letter of April 18, 2000, requesting that I help facilitate your receiving NTLF tritium inventory information from LBNL and DOE. As you mentioned in your letter, Bernd Franke of IFEU, the City of Berkeley's independent contractor, is working with LBNL on questions related to the inventory. I have spoken to David McGraw (Division Director, Environment, Health and Safety, LBNL) and he assures me that the lab will work closely with Bernd Franke to provide him with the inventory information necessary for him to complete his assessment. I hope that will address the concerns for information that you requested in your letter.

You also stated in your letter that the EPA split sample air results collected from the Lawrence Hall of Science, starting in September, 1997 are not true reflections of typical operating conditions at the NTLF. While I understand your point, I would maintain that, in fact, the samples are exactly reflecting typical operating conditions since 1997. Further, since we intend to continue to take split sample, our results will show typical operating conditions from now on. If the lab should increase or decrease their releases, that will be reflected in our sample results. As far as when we started sampling, that was based on our hearing your concerns about the Clean Air Act computer modeling at the inception of the Tritium Issues Workgroup. Having heard that you and other members of CMTW were concerned that a model was used to determine safety we realized that, even though it was not required by the Clean Air Act, we could provide this extra assurance of safety by sharing the samples from LBNL's monitors.

Your letter referenced a report by Owen Hoffman indicating that releases of tritium occurred predominantly during daytime hours, when children would be visiting the Lawrence Hall of Science. You then conclude that the split sampling results do not address this short term exposure. In fact, the Clean Air Act accounts for this. The Clean Air Act provides that environmental measurements of tritium that averaged below 1,500 pCi/m3 would demonstrate compliance with the standard of 10 millirem / year. This means that ambient air could contain just under 1,500 pCi/m3 of tritium all the time, 24 hours/day, all year long and still be in compliance with the Clean Air Act public health standard. Short term concentrations up to or even above 1,500 pCi/m3 would not necessarily exceed the standard. In fact our monthly averages are always far below this level and have not even come close to that air concentration This provides assurance that the duration of the releases do not underestimate exposure to people visiting the Hall of Science. We are also aware that another concern that has been raised is that vegetation in the area emits tritium as a process of its transpiring water which contains tritium and that this would contribute to exposures during most daylight hours. The ambient air monitors which run continuously, 24 hours per day, all year long would capture these emissions as well.

Since all the cumulative monthly exposures are much less than the Clean Air Act regulatory levels, someone who spent shorter periods of time at the LHS, such as a visitor, would receive very small fractions of the permissible regulatory level. In short, based on our split sample results, we believe that there is no adverse health hazard to individuals visiting the LHS due to tritium emissions from the NTLF.

I hope that I have answered your questions. Please contact me if you would like further information.

Sincerely,

Michael S. Bandrowski, Chief
Radiation and Compliance Office

cc: David McGraw, LBNL